

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S29	41	thermal stres\$ SAME senso\$ SAME ratio	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 12:27
S30	45	(thermal or heat) stres\$ SAME senso\$ SAME ratio	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 12:31
S31	7	S30 AND (expans\$ or contract\$) same (fractur\$ or crack\$)	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 12:36
S32	1784	sensor\$ near5 (crack\$ or fractur\$)	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 12:54
S33	485	S32 and heat and therma\$	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 12:39
S34	1	204/408.ccls. AND therma\$ stress near (crack\$ or fractur\$)	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 13:01
S35	18	"204".clas. AND therma\$ stress near (crack\$ or fractur\$)	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 13:58
S36	25	"142194"	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 13:19
S37	3	"10-142194"	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 13:19
S38	1717	((gas sensor OR oxygen sensor) AND (internal combustion) AND (therma\$ stability or stable))	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 14:02
S39	12141	sensor same (stress OR therma\$ OR crack\$ or expansion or heat) same mechanic\$	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 14:05
S40	9765	sensor same (stress OR therma\$ OR crack\$ or expansion) same mechanic\$	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 14:06
S41	9085	sensor same (stress OR therma\$ OR crack\$) same mechanic\$	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 14:06
S42	7	sensor same (stress near5 therma\$ near5 crack\$) same mechanic\$	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 14:28
S43	16	"257842"	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 14:42

## EAST Search History

S44	39	"5034112"	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 14:42
S45	1	"5034112".pn.	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 14:52
S46	1	"4668374".pn.	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 14:58
S47	1	"4505799".pn.	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 15:04
S48	1	"5648601".pn.	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 15:19
S49	17575	thermal near5 (shock\$ or stress\$) same (crack\$ or fractur\$)	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 15:25
S50	407	thermal near3 (shock\$ or stress\$ or stabilit\$) same (crack\$ or fractur\$) same width\$	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 15:26
S51	30	S50 and sensor	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 15:29
S52	135327	kato.in.	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 15:28
S53	2991	Nobuhide.in.	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/26 15:45
S55	1444	gas sensor	EPO	ADJ	ON	2006/12/26 15:46
S56	49	thermal\$ near3 (stress shock) and sensor	EPO	OR	ON	2006/12/26 16:17
S57	90960	sensor adj element\$ thermal adj (shock or stress)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/12/26 16:18
S58	172	sensor adj element\$ same thermal adj (shock or stress)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/12/26 16:19

## EAST Search History

S61	265	("4960708" "5520858" "5662838" "5824271" "5282739" "5443711" "5542828" "5785902" "5803938" "4394033" "4824549" "4839020" "4928684" "5339672" "5453248" "5538612" "5743085" "5921078" "6089016" "6105942" "6203678" "6231734" "6237655" "4313338" "4339320" "4365505" "4409980" "4458494" "4515554" "4619144" "4836012" "4913792" "5223123" "5283437" "5336007" "5346604" "5351522" "5763760" "5880353" "5887858" "5899443" "5904996" "6083371" "6093294" "6108096" "6158508" "6200387" "6202472" "6210641" "6222184" "6210641" "6222184" "6230545" "4265714" "4267023" "4294679" "4297173" "4299669" "4302185" "4314475" "4362765" "4363112" "4365322" "4383907" "4384936" "4396371" "4403588" "4407153" "4443791" "4446420" "4481404" "4483199" "4491142" "4498304" "4502939" "4507643" "4509913" "4512200" "4527525" "4549432" "4569228" "4570639" "4579643" "4620437" "4622946" "4759210" "4762605" "4767504" "4769123" "4770760" "4774417" "4794323" "4795544" "4806491" "4813431" "4814059" "4824548" "4836906" "4844870" "4857275" "4858144" "4859307" "4863016" "4877511" "4890478" "4902400" "4911892" "4919609" "4935206" "4941308" "4943330" "4977623" "4982937" "4995256" "4998018" "5011590" "5012432" "5178267" "5186808" "5209275" "5232839" "5236569" "5273424" "5275327" "5282948" "5303701" "5344545" "5344549" "5352353" "5382341" "5388558" "5390846" "5398661" "5403452" "5407829" "5416724" "5425492" "5426593" "5434551" "5439579" "5445725" "5458006" "5460711" "5474584" "5474660" "5480535" "5494557" "5497977" "5505177" "5522617" "5528923" "5536340" "5540886" "5543113" "5547554" "5550375" "5553391" "5560338" "5562085" "5573007" "5623212" "5624640" "5631340" "5637949" "5656142" "5666924" "5670112" "5672811" "5700360" "5707504" "5718512" "5725425" "5726908" "5747818" "5767882" "5770152" "5776235"	US-PGPUB; USPAT	OR	ON	2007/01/19 08:54
1/19/2007 9:23:04 AM		C:\Documents and Settings\jmerkle\My Documents\EAST\Workspaces\Kurachi.wsp				Page 3

## EAST Search History

S62	29	("4308721" "4315729" "4319220" "4325346" "4327551" "4328941" "4334258" "4336917" "4337557" "4344293" "4345618" "4345985" "4352099" "4354308" "4357922" "4358951" "4359989" "4360856" "4363556" "4366039" "4366678" "4367388" "4369364" "4375368" "4376681" "4379402" "4380400" "4381075" "4382698" ).pn.	US-PGPUB; USPAT	OR	ON	2006/12/27 09:09
S65	2	(S61 or S62) AND (thermal (stress or shock) same (crack\$ or fracture\$))	US-PGPUB; USPAT	ADJ	ON	2006/12/27 09:37
S67	44	(S61 or S62) AND (gas inlet)	US-PGPUB; USPAT	ADJ	ON	2006/12/27 09:38
S68	17	S67 AND (width)	US-PGPUB; USPAT	ADJ	ON	2006/12/27 09:49
S69	101	inlet\$ near2 gas same (width\$ OR ratio\$) same lateral\$	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 09:54
S70	15	S69 and sensor	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 09:56
S71	6	gas inlet width	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 10:01
S73	367	thermal\$ (stabl\$ or stabilit\$) same (crack\$ or fractur\$ or stress) same gas	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 10:10
S74	1	S73 AND (sensor element)	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 10:06
S77	4920	thermal\$ (shock\$ or stress\$) same (stabl\$ or stabilit\$)	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 10:14
S78	247	thermal\$ (shock\$ or stress\$) same (stabl\$ or stabilit\$) same (width or lengt\$)	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 10:16
S79	4964	"gas sensor".ti.	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 10:16
S80	2323	"gas sensor".ti. AND element	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 10:17
S81	127	"gas sensor".ti. AND element AND thermal\$ (stress\$ or shock\$)	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 11:37

## EAST Search History

S82	157	"sensor element" near5 structur\$ AND "204".clas.	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 11:38
S83	130	"sensor element" near5 structur\$ AND "204".clas. AND (heat or thermal\$)	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 11:40
S84	36	"sensor element" near5 structur\$ AND "204".clas. AND (heat or thermal\$) same (integrit\$ or stabilit\$ or stress\$ or shock\$)	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 11:42
S85	1	S84 AND (inlet or opening) near4 width	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 12:00
S86	1	gas sensor element same dimension same inlet	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 12:02
S87	12	gas sensor element same dimension	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 13:31
S90	13	gas sensor same inlet same dimension	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 13:46
S91	25087	NGK.as.	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 13:47
S93	1	S90 AND (gas near2 inlet same dimension same (thermal or heat))	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 13:50
S94	8	S90 AND (gas near2 inlet same dimension)	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 13:54
S96	2	"1471346"	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 13:59
S97	1	"6222372".pn.	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 14:11
S98	1	"4818363".pn.	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 15:30
S99	21	"162603"	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 15:31
S107	21	"162603"	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 15:36

## EAST Search History

S10 8	2729	"NGK".as.	EPO	ADJ	ON	2006/12/27 15:38
S11 4	1	"4610741".pn.	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2006/12/27 15:49
S11 5	1	"6770181".pn.	USPAT	ADJ	ON	2007/01/17 08:23
S11 6	1	S115 AND concentration near3 NOx	USPAT	ADJ	ON	2007/01/17 08:23